COLORADO DISCHARGE PERMIT SYSTEM (CDPS)
FACT SHEET FOR PERMIT NUMBER CO0047431
TOWN OF PAONIA WWTF
DELTA COUNTY

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I. TYPE OF PERMIT

A. Permit Type: Domestic - Minor Municipal, Lagoon System, First Renewal

B. Discharge To: Surface Water

II. FACILITY INFORMATION

A. SIC Code: 4952 Sewerage Systems

B. Facility Classification: Class D per Section 100.5.2 of the Water and Wastewater Facility Operator Certification Requirements

C. Facility Location: 38°51'20" N Latitude, 107°37'30" W Longitude

D. Permitted Feature: 001A, 001B, 001C, following treatment and prior to mixing with the North Fork of the Gunnison River located at 38°51'20" N, 107°37'30" W.
Outfalls designate flow tiers and not separate locations.
Outfall 001A flow ≤ 0.2 MGD
Outfall 001B 0.2 MGD > flow ≤ 0.3 MGD
Outfall 001C 0.3 MGD > flow ≤ design capacity of 0.495 MGD
The location provided above will serve as the point of compliance for this permit and is appropriate as it is located after all treatment and prior to discharge to the receiving water.

E. Facility Flow: 0.495 MGD

F. Major Changes from Last Renewal:

A Selenium (Se) Total Maximum Daily Load (TMDL) was completed and approved by the United States Environmental Protection Agency (EPA) in 2011 which included a waste load allocation (WLA) for this facility. This WLA for Se was implemented in this permitting action.

Total Inorganic Nitrogen (T.I.N.) was included in this renewal to protect an identified water supply use.

III. RECEIVING STREAM

A. Waterbody Identification: *COGUNF03, the North Fork of the Gunnison River*

B. Water Quality Assessment:

An assessment of the stream standards, low flow data, and ambient stream data has been performed to determine the assimilative capacities for *the North Fork of the Gunnison River* for potential pollutants of concern. This information, which is contained in the Water Quality Assessment (WQA) for this receiving stream, also includes an antidegradation review, where appropriate. The Division's Permits Section has reviewed the assimilative capacities to determine the appropriate WQBELs as well as potential limits based on the antidegradation evaluation, where applicable. The limitations based on the assessment and other evaluations conducted as part of this fact sheet can be found in Part I.A of the permit.

Permitted Feature *001A, 001B, 001C* will be the authorized discharge point to the receiving stream.

IV. FACILITY DESCRIPTION

A. Infiltration/Inflow (I/I)

The Town of Paonia has extensive infiltration and inflow (I/I) issues. In 2001, the Town invested in sewer line upgrades intended to reduce I/I issues by approximately 30 to 50% prior to design and construction of the current facility. The Town repaired or replaced some lines while others were considered more costly to replace than to treat the additional flow. The current facility was designed to treat the excess flow expected to exceed 120 gallons per capita per day (gpcd) seasonally and the Division has granted a waiver to the 85% BOD removal requirement. See Section VI.B. for further discussion on the BOD 85% removal waiver.

B. Lift Stations

There are no lift stations in the service area.

C. Chemical Usage

The permittee stated in the operation and maintenance manual included in the application that they utilize two chemicals in their treatment process. The following chemicals have been approved for use: Hypochlorite for disinfection and Sodium Thiosulfate as needed for reduction of total residual chlorine.

Chemicals deemed acceptable for use in waters that will or may be discharged to waters of the State are acceptable only when used in accordance with all state and federal regulations, and in strict accordance with the manufacturer's site-specific instructions.

D. Treatment Facility, Facility Modifications and Capacities

The facility consists of headworks (composed of bar screens and influent flow monitoring), two aerated lagoons, a polishing pond, chlorine disinfection, effluent flow monitoring, and dechlorination. The permittee has not performed any construction or upgrades at this facility that would change the hydraulic

capacity of 0.495 MGD or the organic capacity of 560 lbs BOD_5/day, which were specified in Site Approval 4781. That document should be referred to for any additional information.

Pursuant to Section 100.5.2 of the Water and Wastewater Facility Operator Certification Requirements, this facility will require a Class D certified operator.

E. Sludge Treatment and Disposal

Since the treatment facility consists of aerated lagoons, sludge removal will probably be infrequent (once every 5 to 10 years) and only take place if the ponds are drained and cleaned. If sludge is removed from the lagoons for any reason, it must be disposed of in accordance with local, State and Federal regulations.

EPA Region 8 issued a General Permit (effective October 19, 2007) for Colorado facilities whose operations generate, treat, and/or use/dispose of sewage sludge by means of land application, landfill, and surface disposal under the National Pollutant Discharge Elimination System. All Colorado facilities are required to apply for and to obtain coverage under the EPA General Permit.

V. PERFORMANCE HISTORY

A. Monitoring Data

Discharge Monitoring Reports – The following tables summarize the effluent data reported on the Discharge Monitoring Reports (DMRs) for the previous permit term, from August 2008 through October 2012.

Table V-1 – Summary of DMR Data for Permitted Feature 001A, 001B, 001C

Parameter	*# Samples or Reporting Periods*	*Reported Average Concentrations Avg/Min/Max*	*Reported Maximum Concentrations Avg/Min/Max*	*AD 2-Year Average Avg/Min/Max*	*Previous Avg/Max/AD Permit Limit*	*Number of Limit Excursions*
Influent Flow (MGD)	*50*	*0.23/0.026/0.42*	*0.3/0.038/0.59*		*Report/Report*	
Effluent Flow (MGD)	*51*	*0.25/0.14/0.43*	*0.33/0.19/0.54*		*0.495/NA*	
DO (mg/l)	*34*	*NA/NA/NA*	*5.4/1.8/9.1*		*Report (min)*	
*pH (su)**	*51*	*7.6/7.2/8.6*	*8/7.3/8.8*		*6.5 - 9*	
*E. coli (#/100 ml)***	*51*	*25/<1/665*	*25/<1/665*	*56/<1/113*	*1041/2082/304*	
TRC (mg/l)	*51*	*0.024/0.01/0.07*	*0.04/0.02/0.23*	*0.025/0.02/0.04*	*0.123/0.13/0.038*	*1*
NH3 as N, Tot (mg/l) Jan	*4*	*18/13/24*	*18/13/24*	*11/6.4/13*	*35/35/28*	
NH3 as N, Tot (mg/l) Feb	*4*	*19/14/27*	*19/14/27*	*11/9.4/13*	*35/35/28*	
NH3 as N, Tot (mg/l) Mar	*4*	*18/12/21*	*18/12/21*	*11/9.5/14*	*35/35/28*	
NH3 as N, Tot (mg/l) Apr	*4*	*16/13/17*	*16/13/17*	*14/12/16*	*35/35/22*	
NH3 as N, Tot (mg/l) May	*4*	*10/<1/18*	*10/<1/18*	*11/<1/16*	*35/35/22*	
NH3 as N, Tot (mg/l) Jun	*4*	*12/1.9/17*	*12/1.9/17*	*13/12/16*	*18/35/22*	
NH3 as N, Tot (mg/l) Jul	*4*	*12/1.8/19*	*12/1.8/19*	*9.9/7.1/16*	*22/35/9.5*	
NH3 as N, Tot (mg/l) Aug	*5*	*4.6/1/12*	*4.6/1/12*	*8.9/5.9/15*	*21/35/9.5*	
NH3 as N, Tot (mg/l) Sep	*5*	*5.6/1/10*	*5.6/1/10*	*8.8/5.5/14*	*22/35/9.5*	
NH3 as N, Tot (mg/l) Oct	*4*	*1/<1/2.8*	*1/<1/2.8*	*14/<1/16*	*34/35/28*	
NH3 as N, Tot (mg/l) Nov	*3*	*3.9/<1/10*	*3.9/<1/10*	*13/<1/16*	*35/35/28*	
NH3 as N, Tot (mg/l) Dec	*4*	*9.6/5.9/12*	*9.6/5.9/12*	*11/4.2/14*	*35/35/28*	
BOD5, influent (mg/l)	*49*	*80/33/137*	*80/33/137*		*Report*	
BOD5, influent (lbs/day)	*49*	*152/52/266*	*152/52/266*		*Report*	
BOD5, effluent (mg/l)	*51*	*12/3.5/30*	*12/3.5/30*		*30/45/*	
BOD5, effluent (lbs/day)	*51*	*25/0/77*	*25/0/77*		*124/186/*	
TSS, influent (mg/l)	*50*	*73/41/206*	*73/41/206*		*Report*	
TSS, effluent (mg/l)	*51*	*17/<1/59*	*17/<1/59*		*75/110/*	
TDS, PWS intake (mg/l)	*17*	*91/76/108*	*91/76/108*	*NA/NA/NA*	*Report*	
TDS, WWTF effluent (mg/l)	*17*	*1052/774/1338*	*1052/774/1338*	*NA/NA/NA*	*Report/Report*	

**The pH data shows the minimum reported values in the "average" column, and the maximum reported values in the "maximum column*
*** Geometric mean*
NA means Not Applicable

B. Compliance with Terms and Conditions of Previous Permit

1. Effluent Limitations – The data shown in the preceding table(s) indicates compliance with the numeric limitations of the previous permit with the exception of a single excursion for total residual chlorine (TRC). The TRC single data point on 9/30/2010 of 0.23 mg/L exceeded the instantaneous maximum of 0.203 mg/L.

   In accordance with 40 CFR Part 122.41(a), any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

2. Other Permit Requirements – The permittee has been in compliance with all other aspects of the previous permit.

VI. DISCUSSION OF EFFLUENT LIMITATIONS

A. Regulatory Basis for Limitations

1. Technology Based Limitations

   a. Federal Effluent Limitation Guidelines – The Federal Effluent Limitation Guidelines for domestic wastewater treatment facilities are the secondary treatment standards. These standards have been adopted into, and are applied out of, Regulation 62, the Regulations for Effluent Limitations.

   b. Regulation 62: Regulations for Effluent Limitations – These Regulations include effluent limitations that apply to all discharges of wastewater to State waters and are shown in Section VIII of the WQA. These regulations are applicable to the discharge from the Town of Paonia WWTF.

2. Numeric Water Quality Standards - The WQA contains the evaluation of pollutants limited by water quality standards. The mass balance equation shown in Section VI of the WQA was used for most pollutants to calculate the potential WQBELs, M_2, that could be discharged without causing the water quality standard to be violated. For ammonia, the AMMTOX Model was used to determine the maximum assimilative capacity of the receiving stream. A detailed discussion of the calculations for the maximum allowable concentrations for the relevant parameters of concern is provided in Section VI of the WQA developed for this permitting action.

   The maximum allowable pollutant concentrations determined as part of these calculations represent the calculated effluent limits that would be protective of water quality. These are also known as the WQBELs. Both acute and chronic WQBELs may be calculated based on acute and chronic standards, and these may be applied as daily maximum (acute) or 30-day average (chronic) limits.

3. Narrative Water Quality Standards - Section 31.11(1)(a)(iv) of The Basic Standards and Methodologies for Surface Waters (Regulation No. 31) includes the narrative standard that State surface waters shall be free of substances that are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life.

   Whole Effluent Toxicity (WET) - The Division has established the use of WET testing as a method for identifying and controlling toxic discharges from wastewater treatment facilities. WET testing is being utilized as a means to ensure that there are no discharges of pollutants "in amounts, concentrations or combinations which are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life" as required by Section 31.11 (1) of the Basic Standards and Methodologies for Surface Waters. The requirements for WET testing are being implemented in accordance with Division policy, Implementation of the Narrative Standard for Toxicity in Discharge Permits Using Whole Effluent Toxicity (Sept 30, 2010). Note that this policy has recently been updated and the permittee should refer to this document for additional information regarding WET.

4. Water Quality Regulations, Policies, and Guidance Documents

   a. Antidegradation - Since the receiving water is undesignated, an antidegradation review is required pursuant to Section 31.8 of The Basic Standards and Methodologies for Surface Water. Reviews are conducted in accordance with the Division's Antidegradation Significance Determination for New or Increased Water Quality Impacts Guidance (AD Guidance). As set

forth in Section VII of the WQA, an antidegradation evaluation was conducted for pollutants when water quality impacts would occur and when the impacts were significant. Based on the antidegradation requirements and the reasonable potential analysis discussed below, antidegradation-based limits may be applied.

According to Division procedures, the facility has three options related to antidegradation-based effluent limits: (1) the facility may accept antidegradation-based average concentrations (ADBACs) as permit limits (see Section VII of the WQA); (2) the facility may select permit limits based on their non-impact limit (NIL), which would result in the facility not being subject to further antidegradation review and thus the antidegradation-based average concentrations would not apply (the NILs are also contained in Section VII of the WQA); or (3) the facility may complete an alternatives analysis as set forth in Section 31.8(3)(d) of the regulations which would result in alternative antidegradation-based effluent limitations (ADBELs).

The effluent must not cause or contribute to an exceedance of a water quality standard and therefore the WQBEL must be selected if it is lower than the NIL. Where the WQBEL is not the most restrictive, the discharger may choose between the NIL or the ADBAC: the NIL results in no increased water quality impact; the ADBAC results in an "insignificant" water quality impact. The ADBAC and ADBEL limits are imposed as two-year rolling average limits.

b. Antibacksliding – As the receiving water is undesignated or "reviewable", and the Division has performed an antidegradation evaluation, in accordance with the AD Guidance, the antibacksliding requirements in Regulation 61.10 have been met.

c. Determination of Total Maximum Daily Loads (TMDLs) –This fact sheet and the accompanying permit include a TMDL developed as specified in Total Maximum Daily Load Assessment, Gunnison River and Tributaries, Uncompahgre River and Tributaries, Delta/Mesa/Montrose Counties, Colorado (Gunnison Se TMDL) and the corresponding waste load allocations (WLAs) for Selenium (Se). As required under the Clean Water Act Section 303(d), these TMDLs have been submitted, through the normal public notification process, to EPA Region VIII for their review and approval, and were approved in February 2011. The WLA for the Town of Paonia has been incorporated into this permitting action.

d. Colorado Mixing Zone Regulations – Pursuant to section 31.10 of The Basic Standards and Methodologies for Surface Water, a mixing zone determination is required for this permitting action. The Colorado Mixing Zone Implementation Guidance, dated April 2002, identifies the process for determining the meaningful limit on the area impacted by a discharge to surface water where standards may be exceeded (i.e., regulatory mixing zone). This guidance document provides for certain exclusions from further analysis under the regulation, based on site-specific conditions.

The guidance document provides a mandatory, stepwise decision-making process for determining if the permit limits will not be affected by this regulation. Exclusion, based on Extreme Mixing Ratios, may be granted if the ratio of the facility design flow to the chronic low flow (30E3) is greater than 2:1 or if the ratio of the chronic low flow to the design flow is greater than 20:1. Since the ratio of the chronic low flow to the design flow is 10:1 the permittee is eligible for an exclusion from further analysis under the regulation. In addition, the Town of Paonia has previously demonstrated in 2008 that they are excluded from further reduction in available assimilative capacity based on mixing zones due to exclusions based on ratios of river dimensions.

e. Salinity Regulations – In compliance with the Colorado River Salinity Standards, the Colorado Discharge Permit System Regulations, and the Division's Baseline Monitoring Frequency, Sample Type, and Reduced Monitoring Frequency Policy for the Industrial and Domestic Wastewater Treatment Facilities, the permittee shall monitor for total dissolved solids (TDS) on a quarterly basis.

An evaluation of the discharge of total dissolved solids indicates that the Town of Paonia facility exceeds the threshold of 1 ton/day or 350 tons/year of salinity. To determine the TDS loading from this facility, the average reported TDS values were multiplied by the average flow, then by 8.34. The average was determined to be 1.08 tons/day.

In conformance with section 61.8(2)(l)(i)(A) of the Colorado Discharge Permit System Regulations, the permittee must submit a report that documents whether it is feasible to treat to these levels. The Salinity Regulations allow for the waiver of TDS limitations upon submittal of a report that demonstrates that achievement of zero salt loading or, in the event that is not achievable, discharge of less than one ton per day, is not economically feasible. There is no record that the permittee has previously submitted this report. If a report has previously been submitted, the permittee should submit a copy of this report. Quarterly monitoring for total dissolved solids remains applicable.

f. Reasonable Potential Analysis – Using the assimilative capacities contained in the WQA, an analysis must be performed to determine whether to include the calculated assimilative capacities as WQBELs in the permit. This reasonable potential (RP) analysis is based on the Determination of the Requirement to Include Water Quality Standards-Based Limits in CDPS Permits Based on Reasonable Potential, dated December, 2002. This guidance document utilizes both quantitative and qualitative approaches to establish RP depending on the amount of available data.

A qualitative determination of RP may be made where ancillary and/or additional treatment technologies are employed to reduce the concentrations of certain pollutants. Because it may be anticipated that the limits for a parameter could not be met without treatment, and the treatment is not coincidental to the movement of water through the facility, limits may be included to assure that treatment is maintained.

A qualitative RP determination may also be made where a federal effluent limitation guideline (ELG) exists for a parameter, and where the results of a quantitative analysis results in no RP. As the federal ELG is typically less stringent than a limitation based on the WQBELs, if the discharge was to contain concentrations at the ELG (above the WQBEL), the discharge may cause or contribute to an exceedance of a water quality standard.

To conduct a quantitative RP analysis, a minimum of 10 effluent data points from the previous 5 years, should be used. The equations set out in the guidance for normal and lognormal distribution, where applicable, are used to calculate the maximum estimated pollutant concentration (MEPC). For data sets with non-detect values, and where at least 30% of the data set was greater than the detection level, MDLWIN software is used consistent with Division guidance to generate the mean and standard deviation, which are then used to establish the multipliers used to calculate the MEPC. If the MDLWIN program cannot be used the Division's guidance prescribes the use of best professional judgment.

For some parameters, recent effluent data or an appropriate number of data points may not be available, or collected data may be in the wrong form (dissolved versus total) and therefore may not be available for use in conducting an RP analysis. Thus, consistent with Division procedures, monitoring will be required to collect samples to support a RP analysis and subsequent decisions for a numeric limit. A compliance schedule may be added to the permit to require the request of an RP analysis once the appropriate data have been collected.

For other parameters, effluent data may be available to conduct a quantitative analysis, and therefore an RP analysis will be conducted to determine if there is RP for the effluent discharge to cause or contribute to exceedances of ambient water quality standards. The guidance specifies that if the MEPC exceeds the maximum allowable pollutant concentration (MAPC), limits must be established and where the MEPC is greater than half the MAPC (but less than the MAPC), monitoring must be established. Table VI-1 contains the calculated MEPC compared to the corresponding MAPC, and the results of the reasonable potential evaluation, for those parameters that met the data requirements. The RP determination is discussed for each parameter in the text below.

Table VI-1 – Reasonable Potential Analysis

Parameter	30-Day Average			7-Day Ave or Daily Max			Antideg (2 Year Roll. Ave)		
	MEPC	WQBEL/ NIL (MAPC)	Reasonable Potential	MEPC	WQBEL (MAPC)	Reasonable Potential	MEPC	ADBEL (MAPC)	Reasonable Potential
E. coli (#/100 ml)	1200	1043	Yes	1225	2086	Yes	120	NA	NA
TRC (mg/l)	0.1	0.015	Yes	0.44	0.14	Yes	0.05	NA	NA
Total Inorganic Nitrogen (mg/l)	NA			NA	73	Qual	NA	NA	NA
NH3 as N, Tot (mg/l) Jan	24	26	Yes	24	40	Yes	13	NA	NA
NH3 as N, Tot (mg/l) Feb	27	26	Yes	27	40	Yes	13	NA	NA
NH3 as N, Tot (mg/l) Mar	21	23	Yes	21	40	Yes	14	NA	NA
NH3 as N, Tot (mg/l) Apr	17	35	Yes	17	40	Yes	16	NA	NA
NH3 as N, Tot (mg/l) May	18	19	Yes	18	35	Yes	16	NA	NA
NH3 as N, Tot (mg/l) Jun	17	15	Yes	17	30	Yes	16	NA	NA
NH3 as N, Tot (mg/l) Jul	19	13	Yes	19	33	Yes	16	9.5	Yes
NH3 as N, Tot (mg/l) Aug	12	14	Yes	12	34	Yes	15	9.5	Yes
NH3 as N, Tot (mg/l) Sep	10	14	Yes	10	32	Yes	14	9.5	Yes
NH3 as N, Tot (mg/l) Oct	2.8	16	Yes	2.8	28	Yes	16	9.5	Yes
NH3 as N, Tot (mg/l) Nov	10	25	Yes	10	40	Yes	13	NA	NA
NH3 as N, Tot (mg/l) Dec	12	26	Yes	12	38	Yes	14	NA	NA

B. Parameter Evaluation

BOD_5 - The BOD_5 concentrations in Regulation 62 are the most stringent effluent limits and are therefore applied. These limitations are the same as those contained in the previous permit and are imposed upon the effective date of this permit.

Total Suspended Solids (TSS) - The TSS concentrations in Regulation 62 are the most stringent effluent limits and are therefore applied. These limitations are the same as those contained in the previous permit and are imposed upon the effective date of this permit.

According to Section 62.5(2) of the Regulations for Effluent Limitations "Where the permittee has demonstrated that the treatment facility is unable to meet the 85% removal requirement for a parameter and the inability to meet the requirement is not caused by excessive infiltration, as defined in 40 CFR 35.2005(b)(16), a lower percent removal requirement or a mass loading limit may be substituted provided that the permittee can demonstrate that the provisions of 40 CFR 133.103(d) can be met (note that these provisions echo those set out by the Regulations for Effluent Limitations and also indicate that the facility must essentially be well operated so as to be able to meet the proposed effluent limits). According to a previously submitted state-approved study, I/I is more cost effectively treated than removed, thus meeting the definition of nonexcessive I/I as per 40 CFR 35.2005(b)(28). Furthermore, the effluent data set forth in Table V-1 indicate that the facility will be able to comply with the proposed effluent limits. Finally, the most recent Division inspection indicates satisfactory operations. Based on these findings, the Town of Paonia WWTF meets all provisions of 40 CFR 133.103(d) and therefore qualifies for a waiver for the BOD_5 and TSS percent removal. However, as per the regulations, mass loadings for BOD_5 and TSS are included in the permit.

Oil and Grease –The oil and grease limitations from the Regulations for Effluent Limitations are applied as they are the most stringent limitations. This limitation is the same as those contained in the previous permit and is imposed upon the effective date of this permit.

pH - This parameter is limited by the water quality standards of 6.5-9.0 s.u., as this range is more stringent than other applicable standards. This limitation is the same as that contained in the previous permit and is imposed upon the effective date of this permit.

E. Coli – A qualitative determination of RP has been made as the treatment facility has been designed to treat specifically for this parameter. The limitation for *E. Coli* is based upon either the WQBEL, NIL or technology limit (2000, 4000/100ml). For some flow tiers and/or seasons, the calculated *E. Coli* WQBEL in the WQA is greater than that allowed by the Division procedure for *E. coli*, which specifies a maximum of 2,000 organisms per 100 ml (30-day geometric mean) and 4,000 organisms per 100 ml (7-day geometric mean). The limitation for *E. Coli* at design capacity is based upon the WQBEL or NIL as described in the WQA.

Previous monitoring as shown in Table V-1 indicate that this limitation can be met and is therefore imposed upon the effective date of the permit.

Total Residual Chlorine (TRC) - The limitation for TRC is based upon the NIL as described in the WQA. A qualitative determination of RP has been made as chlorine may be used in the treatment process.

Total Inorganic Nitrogen (T.I.N.) - The calculated WQBEL for T.I.N. as set out in the WQA is imposed to protect downstream water supplies. A qualitative determination of RP has been made as the facility is expected to have ammonia, nitrate, and nitrite in the discharge.

This is a new limitation and it is unknown if the permittee can meet the limit and therefore a compliance schedule has been added to the permit to give the permittee time to meet this limitation.

Total Ammonia - The limitation for ammonia is based upon the WQBEL,NIL or ADBEL depending on the month as described in the WQA. A qualitative determination of RP has been made as the treatment facility has been designed to treat specifically for this parameter.

Previous monitoring as shown in Table V-1 indicate that this limitation can be met and is therefore effective immediately.

Potentially Dissolved Selenium – The chronic limitation for Se is based upon the WLA set in the Gunnison Se TMDL. The acute WQBEL is not applied as the chronic limitation is protective of the acute standard. There is no effluent Se data; therefore, an RP analysis could not be performed. Due to the unknown nature of Se in the Paonia effluent, monitoring and reporting will be required prior to the effective date of the permit limit.

Temperature - The MWAT is the maximum weekly average temperature, as determined by a seven day rolling average, using at least 3 equally spaced temperature readings in a 24-hour day (at least every 8 hours for a total of at least 21 data points).

The daily maximum is defined as the maximum 2 hour average, with a minimum of 12 equally spaced measurements throughout the day. As both of these temperature requirements will likely require the use of automated temperature measurements and recordings, the permittee is given a compliance schedule to have the proper equipment in place to take the required readings.

As it is unknown whether the facility can meet the new temperature limitation, or whether there is reasonable potential for the facility to cause or contribute to an exceedance of the water quality standard for temperature, report only conditions will be required for the duration of this permit. Upon the next permit renewal, the collected temperature data will be used to determine if there is reasonable potential, and/or if the permittee can meet the limitation.

As continuous ambient water quality data, in accordance with the definition of the standard, is not available, the permittee is encouraged to collect instream data on a continuous basis. This data may be used during the next permit renewal, so that the assimilative capacity of the receiving water (if applicable) can be calculated and used to determine a limitation based on the streams dilution potential. If such data is not available, the Division will likely set the limitation at the water quality standard (i.e. end of pipe limit, no dilution).

Organics – The effluent is not expected or known to contain organic chemicals, and therefore, limitations for organic chemicals are not needed in this permit.

Whole Effluent Toxicity (WET) Testing – The Town of Paonia WWTF is a minor facility without significant industrial users. The parameters of concern are adequately controlled by effluent limitations and there is little potential for other parameters to be present.

Due to the above statements, and in accordance with Section 61.8(2)(b)(i)(B) of the Colorado Discharge Permit System Regulations, the discharge does not have the reasonable potential to cause, or measurably contribute to, an excursion above any narrative standards for water quality. Therefore, WET testing is not a requirement of this permit. However, the Division reserves the right to reopen the permit to include WET testing, should facility conditions change or if new information becomes available.

The permittee should be aware that some of the conditions outlined above may be subject to change if the facility experiences a change in discharge, as outlined in Part II.A.2. of the permit. Such changes shall be reported to the Division immediately.

C. Parameter Speciation

Dissolved Metals / Potentially Dissolved - For metals with aquatic life-based dissolved standards, effluent limits and monitoring requirements are typically based upon the potentially dissolved method of analysis, as required under Regulation 31, Basic Standards and Methodologies for Surface Water. Thus, effluent limits and/or monitoring requirements for these metals will be prescribed as the "potentially dissolved" form.

VII.ADDITIONAL TERMS AND CONDITIONS

A. Monitoring

Effluent Monitoring – Effluent monitoring will be required as shown in the permit document. Refer to the permit for locations of monitoring points. Monitoring requirements have been established in accordance with the frequencies and sample types set forth in the Baseline Monitoring Frequency, Sample Type, and Reduced Monitoring Frequency Policy for Industrial and Domestic Wastewater Treatment Facilities. This policy includes the methods for reduced monitoring frequencies based upon facility compliance as well as for considerations given in exchange for instream monitoring programs initiated by the permittee. Table VI-2 shows the results of the reduced monitoring frequency analysis for Permitted Feature 001A, 001B, 001C based upon compliance with the previous permit.

Based upon the reduced monitoring frequency analysis for Permitted Feature 001A, 001B, 001C shown in Table VI-2, the permittee is eligible for reduced monitoring for *E.coli*.

Table VII-1 – Monitoring Reduction Evaluation

Parameter	***Proposed Permit Limit***	***Average of 30-Day (or Daily Max) Average Conc.***	***Standard Deviation***	***Long Term Characterization (LTC)***	***Reduction Potential***
pH (su) Minimum	*min 6.5*	*7.5*	*0.37*	*6.76*	*None*
pH (su) Maximum	*max 9.0*	*7.9*	*0.37*	*8.64*	
E. coli (#/100 ml)	*1043*	*16*	*117*	*250*	*3 Levels*
TRC (mg/l)	*0.015*	*0.022*	*0.0085*	*0.039*	*None*
NH3 as N, Tot (mg/l)	*13*	*12*	*7.5*	*27*	*None*
Oil and Grease (mg/l)	*10*	*NA*	*NA*	*NA*	*NA*
TDS WWTF (mg/l)		*1053*	*171*	*1395*	*None*
TDS PWS intake (mg/l)		*92*	*9.1*	*110.2*	*None*

B. Reporting

1. Discharge Monitoring Report – The Town of Paonia facility must submit Discharge Monitoring Reports (DMRs) on a monthly basis to the Division. These reports should contain the required summarization of the test results for all parameters and monitoring frequencies shown in Part I.A.2 of the permit. See the permit, Part I.D for details on such submission.

2. Additional Reporting – In conformance with section 61.8(2)(l)(i)(A) of the Colorado Discharge Permit System Regulations, the permittee must submit a report that documents whether it is feasible to treat to 1 ton/day or 350 tons/yr of salinity. The Salinity Regulations allow for the waiver of TDS limitations upon submittal of a report that demonstrates that achievement of zero salt loading or, in the event that is not achievable, discharge of less than one ton per day, is not economically feasible.

3. Special Reports – Special reports are required in the event of an upset, bypass, or other noncompliance. Please refer to Part II.A. of the permit for reporting requirements. As above, submittal of these reports to the US Environmental Protection Agency Region VIII is no longer required.

C. Signatory and Certification Requirements

Signatory and certification requirements for reports and submittals are discussed in Part I.D.8. of the permit.

D. Compliance Schedules

The following compliance schedules are included in the permit. See Part I.B of the permit for more information.

Installation of Temperature Monitoring Equipment - A compliance schedule will be included in the permit to give the facility time to install temperature monitoring equipment for the effluent.

Activities to Meet T.I.N. Limits – The newly identified water supply use led to the inclusion of the T.I.N. limit. Since this is a new limit for the facility, delayed compliance allows time for the facility operator to evaluate treatment needed to meet the new limit. In order to meet the T.I.N. limit, a compliance schedule will be included in the permit.

Selenium - Due to the WLA for Se, a permit limit must be included in the Paonia permit; however, due to the unknown concentration of Se in the discharge, monitoring will be required prior to the effective date of the permit limit.

All information and written reports required by the following compliance schedules should be directed to the Permits Section for final review unless otherwise stated.

E. Economic Reasonableness Evaluation

Section 25-8-503(8) of the revised (June 1985) Colorado Water Quality Control Act required the Division to "determine whether or not any or all of the water quality standard based effluent limitations are reasonably related to the economic, environmental, public health and energy impacts to the public and affected persons, and are in furtherance of the policies set forth in sections 25-8-192 and 25-8-104."

The Colorado Discharge Permit System Regulations, Regulation No. 61, further define this requirement under 61.11 and state: "Where economic, environmental, public health and energy impacts to the public and affected persons have been considered in the classifications and standards setting process, permits written to meet the standards may be presumed to have taken into consideration economic factors unless:

a. A new permit is issued where the discharge was not in existence at the time of the classification and standards rulemaking, or

b. In the case of a continuing discharge, additional information or factors have emerged that were not anticipated or considered at the time of the classification and standards rulemaking."

The evaluation for this permit shows that the Water Quality Control Commission, during their proceedings to adopt the Classifications and Numeric Standards for Gunnison and Lower Dolores River Basins, considered economic reasonableness.

Furthermore, this is not a new discharger and no new information has been presented regarding the classifications and standards. Therefore, the water quality standard-based effluent limitations of this permit are determined to be reasonably related to the economic, environmental, public health and energy impacts to the public and affected persons and are in furtherance of the policies set forth in Sections 25-8-102 and 104. If the permittee disagrees with this finding, pursuant to 61.11(b)(ii) of the Colorado Discharge Permit System Regulations, the permittee should submit all pertinent information to the Division during the public notice period.

Susan Applegate
May 16, 2013

VIII. REFERENCES

A. Colorado Department of Public Health and Environment, Water Quality Control Division Files, for Permit Number CO0047431.

B. Design Criteria Considered in the Review of Wastewater Treatment Facilities, Policy 96-1, Colorado Department of Public Health and Environment, Water Quality Control Commission, April 2007.

C. Basic Standards and Methodologies for Surface Water, Regulation No. 31, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective January 31, 2013.

D. Classifications and Numeric Standards for Gunnison and Lower Dolores River Basins, Regulation No. 35, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective March 30, 2013.

E. Colorado Discharge Permit System Regulations, Regulation No. 61, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective January 30, 2012.

F. Regulations for Effluent Limitations, Regulation No. 62, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective July 30, 2012.

G. Pretreatment Regulations, Regulation No. 63, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective April 1, 2007.

H. Biosolids Regulation, Regulation No. 64, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective March 30, 2010.

I. Colorado River Salinity Standards, Regulation No. 39, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective August 30, 1997.

J. Colorado's Section 303(d) List of Impaired Waters and Monitoring and Evaluation List, Regulation No 93, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective March 30, 2012.

K. Antidegradation Significance Determination for New or Increased Water Quality Impacts, Procedural Guidance, Colorado Department of Public Health and Environment, Water Quality Control Division, effective December 2001.

L. Memorandum Re: First Update to (Antidegradation) Guidance Version 1.0, Colorado Department of Public Health and Environment, Water Quality Control Division, effective April 23, 2002.

M. Determination of the Requirement to Include Water Quality Standards-Based Limits in CDPS Permits Based on Reasonable Potential, Colorado Department of Public Health and Environment, Water Quality Control Division, effective December 2002.

N. The Colorado Mixing Zone Implementation Guidance, Colorado Department of Public Health and Environment, Water Quality Control Division, effective April 2002.

O. Baseline Monitoring Frequency, Sample Type, and Reduced Monitoring Frequency Policy for Domestic and Industrial Wastewater Treatment Facilities, Water Quality Control Division Policy WQP-20, May 1, 2007.

P. Implementing Narrative Standards in Discharge Permits for the Protection of Irrigated Crops, Water Quality Control Division Policy WQP-24, March 10, 2008.

Q. Implementing Narrative Standard for Toxicity in Discharge Permits Using Whole Effluent Toxicity (WET) Testing. Colorado Department of Public Health and Environment, Water Quality Control Division Policy Permits-1, September 30, 2010.

R. Policy for Conducting Assessments for Implementation of Temperature Standards in Discharge Permits, Colorado Department of Public Health and Environment, Water Quality Control Division, Policy Number WQP-23, effective July 3, 2008.

S. Policy for Permit Compliance Schedules, Colorado Department Public Health and Environment, Water Quality Control Division Policy Number WQP-30, effective December 2, 2010.

T. Procedural Regulations for Site Applications for Domestic Wastewater Treatment Works, Regulation No. 22, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective September 30, 2009.

U. Regulation Controlling discharges to Storm Sewers, Regulation No. 65, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective May 30, 2008.

V. Water and Wastewater Facility Operator Certification Requirements, Regulation No. 100, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective June 30, 2012.

IX. PUBLIC NOTICE COMMENTS

The public notice period was from May 17, 2013 to June 17, 2013. No comments were received during the public notice period.

Susan Applegate
June 19, 2013